

# Middle Rio Grande Conservancy District Classification Description

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**TITLE:** Engineer I / II  
**FLSA:** Exempt  
**GRADE:** 85 / 90  
**SUPERVISOR:** Director of Technical Services  
**DEPARTMENT:** Engineering  
**REVISION:** July 2020, November 2021

## **Position Summary:**

Under the direction of the Engineering and Mapping Manager the incumbent performs engineering work related to the design, construction, repair and maintenance of District facilities and water control structures; evaluates non-District designs and construction drawings for compliance with District policies and specifications; inspects and provides direction on construction projects, engineering/planning reports, and other requests by private and governmental agencies and the public; prepares designs for and provides feedback on license requests; ensures that projects are completed on time and to engineering and safety standards.

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties performed by all employees in this job, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

## **Essential Duties & Responsibilities:**

- Designs and inspects weirs, flumes, culverts, waterways, turnouts; ensures rights-of-way and other related irrigation and drainage structures are maintained and constructed according to District plans and specifications.
- Assists all MRGCD divisions with engineering needs; provides solutions and technical support to issues and advises on the use construction equipment and construction practices.
- Prepares multi-sheet plansets and standard details using AutoCAD and Civil 3D for the rehabilitation of existing facilities and structures, and new construction in all MRGCD divisions.
- Interpret plats and related survey documentation
- Perform surveys using a laser and survey grade GPS equipment and interpret survey data and topographic maps
- Supports the licensing process by designing and evaluating plans and other related reports for culvert crossings, utilities, turnout gates, construction impacts etc.; meets with agencies and the public to inform and direct proposed construction and plans that affect District interests and operations.
- Operates computer-assisted engineering and design software such as AutoCAD/ Civil 3D and HEC-HMS for hydraulic modeling and to perform engineering tasks
- Uses Microsoft Office suite to create reports and build, manipulate and interpret complex spreadsheets and data
- Implements and observes safety rules to ensure and maintain a safe work environment.
- Maintains professional and technical knowledge by attending seminars, educational workshops, classes and conferences; conferring with representatives of contracting agencies and related organizations.
- Maintains a professional attitude and behavior towards colleagues and constituents and contributes to a team effort and accomplishes related results as required.
- Performs other duties as required.

## **Minimum Qualifications**

### **Education and Experience:**

Engineer I: Bachelor's Degree in Civil, Agriculture or Environmental Engineering or related field from an accredited college or university, or must attain Bachelor's Degree in Civil, Agriculture or Environmental Engineering or related field from an accredited college or university within 12 months of date of hire.

Engineer II: Bachelor's Degree in Civil, Agriculture or Environmental Engineering or related field from an accredited college or university and four years' work experience which involved the application of water conservation principles, hydrology / hydraulics, design and construction; or an equivalent combination of education and experience.

### **Licenses / Certificates / Special Requirements:**

Engineer I: Has or can obtain a valid certificate of registration as an Engineer in Training (EIT) issued by the State of New Mexico within 12 months of hire. A valid New Mexico Driver's License and the ability to maintain insurability under the District's vehicle insurance program. Preference given to experienced users of Autodesk Infrastructure Design Suite (AutoCAD & Civil 3D). Experienced users of HEC-RAS, FLO-2D and other engineering models desired.

Engineer II: Licensure as a Professional Engineer (PE). A valid New Mexico Driver's License and the ability to maintain insurability under the District's vehicle insurance program. Preference given to experienced users of Autodesk Infrastructure Design Suite (AutoCAD & Civil 3D). Experienced users of HEC-RAS, FLO-2D and other engineering models desired.

### **Knowledge / Ability / Skills:**

Knowledge of:

- surveying and drafting / AutoCAD techniques and principles
- principles and practices of engineering as it relates to the design and construction of District facilities.
- GIS cartographic/mapping systems and related software use and application
- mathematics used in the engineering field
- engineering and mapping symbols, standards, and terminology
- engineering design, construction plan preparation and specifications
- geographical location of ditches, canals, waste ways, and laterals

Ability to:

- analyze engineering problems and devise creative and effective solutions
- adapt and modify engineering techniques and develop original model concepts within area of professional expertise
- communicate effectively, both orally and in writing
- read and interpret construction plans and reports
- interpret applicable federal, state, county and local laws, regulations, and requirements
- handle multiple tasks, work independently and meet deadlines
- develop and maintain positive working relationships with District employees and the public
- define problems, collect data, establish facts, and draw valid conclusions
- effectively utilize various engineering software programs, Microsoft Office and other typical office software programs.
- Operate a vehicle utilizing legal and defensive driving practices.

Skill in:

- operating digitizers, plotters and drafting instruments
- analyzing problems, projecting consequences, identifying solutions, and implementing recommendations
- technical report preparation

### **Work Environment & Physical Demands:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use written and oral communication skills; read and interpret complex data, information and documents; analyze and solve difficult technical problems; use math and mathematical reasoning; perform highly detail work under changing deadlines, on multiple, concurrent tasks; work with interruptions and interact with District employees, District officials and the public.

While performing the duties of this job, the employee will be exposed to physical demands requiring strength, coordination, and dexterity. The employee will frequently be required to talk; hear; sit; use hands to finger, handle, or feel objects, tools, or controls; the employee is occasionally required to walk, stand; reach forward, downward and upward with hands and arms; the employee may be required to climb stairs, and must maintain balance during this activity. The employee must frequently lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

While performing the duties of this job, the employee will work in a well-lighted office environment with climatically controlled temperatures. The employee will also be regularly exposed to outside weather conditions including direct sunlight, fumes, smoke, dust and airborne particles as well as inclement weather conditions. The noise level in the work environment is usually moderate.

Evening and/or weekend work may be required. Travel may be required for training, meetings, conferences, presentations, and other events. Driving and walking on paved, unpaved and uneven terrain along irrigation facilities is required and working in culturally sensitive areas is common.